

seemed well defined, extending to a distance about equal to the planet's semi-diameter. With no power could any spots on the planet be detected. He was seen throughout as a uniform, slightly purple, black disk.

The time of internal contact I found it impossible to determine at all accurately, but give it as noted at the time. The time of external contact was definite, and is simply the time when no portion of *Mercury* was any longer visible on the Sun's disk. I could see no trace of him after external contact.

Several photographs were taken with a lens of thirty-feet focus, but they are bad.

Internal contact at Egress	...	<sup>h</sup> 15	<sup>m</sup> 36	<sup>s</sup> 12	G. M. T.
External       ,,	...	15	37	44	,,

The time was taken by a sidereal chronometer, the error of which was determined on the morning and in the evening of the Transit.

*Shanghai, 1881.*

---

*On an Object seen near Comet b, 1881, on June 10, 1881.*

By W. Bone, Esq., M.D.

(From two letters to the Secretaries.)

(1.)

On June 10, 1881, whilst measuring the position of the Comet, then visible here at 5<sup>h</sup> 52<sup>m</sup> mean time of place, I noticed a peculiar discordance in each succeeding measure, and at length found that the star (?) from which I was measuring was a rapidly-moving body. At first I was inclined to believe it the result of refraction, but this should have affected both Comet and star nearly equally. On more careful inspection I found it was somewhat discoid, but its light, although bright, was diffused and hazy. It moved through 6' of arc in 34<sup>m</sup> 34<sup>s</sup> of time, in a northerly direction. I immediately telegraphed down full particulars to the Melbourne Observatory, and asked for instructions. Bad weather prevented me from searching for it next morning, and in the evening I could not succeed in again picking it up, neither could I find it where seen on the preceding evening. I never received any answer from the Melbourne Observatory; but when in Melbourne a few days since I called there, and on reminding Mr. E. J. White of the circumstance, he said that Dr. Gould had stated he saw the nucleus split into two *about* that time; but I have since ascertained that it was so observed at Cincinnati on July 6.

This struck me as so remarkable that, acting on the principle of your society, "*Quicquid nitet notandum*," I determined to send you my record of the observation.

The approximate position of the body at that time was

		<sup>h</sup>	<sup>m</sup>	<sup>s</sup>
R. A.		5	18	8
Dec. S.	14°	18'	0''	

If this Comet threw off an appendage on July 6 it might possibly have also done so shortly before I saw this body; and this may be a common phenomenon with comets, but noticed now in consequence of the larger aggregate amount of attention bestowed upon them by the increased number of observers. I am making all possible preparations for the approaching Transit of *Mercury*, and should be glad of any hints with regard to the Transit of *Venus* that might possibly render the efforts of an amateur of some degree of scientific value. I trust by that time to have my 8-in. telescope by Grubb erected.

Castlemaine, Victoria:  
1881, October 22.

(2.)

Enclosed is the original telegram referred to in my communication to you a fortnight since:

Telegram to *E. J. White, Esq. or R. L. J. Ellery, Esq., Observatory, Melbourne.* Transmitted 1881, June 10, 8<sup>h</sup> 10<sup>m</sup> P.M.

"Whilst measuring Comet to-night found what I thought was star, discoid, and travelling south 6' arc in 34<sup>m</sup> time. Declination South, 14° 24'; Right Ascension, 5<sup>h</sup> 18<sup>m</sup> 30<sup>s</sup> at 6.45 mean time. No asteroid in that place. Could not be refraction. Travelled 24<sup>s</sup> in Right Ascension in same interval. Appeared like circular Comet. Reply. Will you search to-morrow morning?—W. BONE."

I have since seen in *Nature* of August 11, 1881, p. 342, a notice of Dr. Gould's having observed a similar phenomenon about two days after I had seen it, and the position given in my telegram to Mr. White at the Melbourne Observatory (which was never answered) makes it appear that it was actually another Comet we observed on those dates.

I should place the magnitude at about 2.5, for it was visible to the naked eye in first twilight. Its travel was perceptible between each set of comparisons, and amounted to 6' in 34<sup>m</sup> of time in Declination, moving 24<sup>s</sup> in R.A. in the above time.

Castlemaine, Victoria:  
1881, November 6.